Maryland's Coastal Program

# Environmental Design Initiative

Environmental Design Program

Maryland's Coastal Program strives to achieve a balance between development and protection to restore and preserve coastal and marine resources. Through partnerships with and funding to local governments, state agencies, non-profit organizations, and universities, the Program addresses a variety of coastal issues including public access, nonpoint source pollution reduction, coastal hazards mitigation, habitat and living resources protection and growth management.

## *Protecting Streams and Watersheds Through Site Design*

***Increased population and development within Maryland's coastal zone have created ever-greater challenges in protecting and restoring local streams and rivers. Given the trends and projections regarding urban and suburban growth and the increase of imperviousness, managing urban runoff is an important activity to reduce non-point source pollutant loads to the Chesapeake and Coastal Bays, maintaining the cap on nutrients, and sustaining progress in protecting local streams and rivers. Technologies to better control and remediate development related impacts are still evolving, and planners and developers need time to become comfortable with emerging practices. The Environmental Design Initiative seeks to speed up that process by having State and local governments lead by example by funding demonstration projects on already developed public lands and facilities owned by State and local governments.***

Dedicated to advancing economically sound and environmentally sensitive building and site-design techniques, the Environmental Design Program provides the business community, local governments, and interested citizens with the information and on-site technical assistance they need to identify, implement, and evaluate actions to enhance and restore natural resources in and around developed environments.

### *Permeable Pavement Gunpowder S.P. - Dundee Creek*

Technique: **Perm Pavers**
Total Cost: **$ 86,000**
EDI Grant: **$ 43,000**
Status: **In Progress**

The Maryland Department of Natural Resources proposes to protect local streams and rivers by replacing a section of existing parking lot with **permeable pavers**. The goal is to increase groundwater recharge and treat runoff into the Chesapeake Bay, educate the general public, and demonstrate innovative site design techniques for future state projects and facilities.

### *Greening Ultra-Urban Watershed Baltimore City*

Technique: **Bioretention**
Total Cost: **$200,000**
EDI Grant: **$ 84,000**
Status: **In Progress**

The Baltimore City Department of Public Works proposes to **restore and "green" small city-owned vacant lots** throughout the inner-harbor watershed to help reduce nonpoint source pollution. The City will engage community groups and citizens to ensure neighborhoods are ready and willing to accept and assist restoration efforts in order to improve the likelihood of success and long-term viability. The goal of this restoration strategy is to reduce pollution and improve quality of life for Baltimore City residents.

### *Joppa Hall Vegetative Roof Harford Community College*

Technique: **Living Roof**
Total Cost: **$130,000**
EDI Grant: **$ 65,000**
Status: **Completed**

As part of several integrated efforts of sound, innovative environmental practices, **Harford Community College** renovated Joppa Hall with the goal of achieving LEED certification through improving stormwater management, energy efficiency, and indoor air quality. Impervious surface has been reduced by installing three separate vegetative roof coverings (total of 8,000 GSF) to demonstrate the functionality and long-term benefits of living roofs in mitigating stormwater runoff, improving energy efficiency, and reducing pollution to local streams and aquifers.

### *Catchment & Rain Garden Harford Community College*

Technique: **Multiple**
Total Cost: **$110,000**
EDI Grant: **$ 32,000**
Status: **In Progress**

Harford Community College is renovating **Havre de Grace Hall** using green building techniques that will improve stormwater management and reduce environmental impacts. As a demonstration project, the college will install a rainwater catchment system and a rain garden to illustrate the efficient and effective use of stormwater and habitat improvement. Gray water from the catchment system will be used to flush toilets and irrigate landscape plantings.

### *Boat Ramp Improvement Worcester County*

Technique: **Multiple**
Total Cost: **$100,000**
EDI Grant: **$ 50,000**
Status: **In Progress**

Worcester County proposes to reduce impervious surface, provide bioretention treatment, and construct a wetland at boat launch facilities in the Maryland **Coastal Bays** and the Lower Pocomoke River Basin. Funding will provide for two boat ramp facilities to be treated with Environmental Design techniques.

### *Wetland Creation Chesapeake Bay Middle School*

Technique: **Wetland**
Total Cost: **$ 70,000**
EDI Grant: **$ 35,000**
Status: **In Progress**

Partnering with Arlington Echo and the County School System, Anne Arundel County proposes to achieve runoff mitigation through the **construction of a wetland on a public school site**. The goal is to replicate similar techniques at other schools and provide an environmental education experience for students. The applicant expects that this project will result in changes in maintenance practices in the County's School System.

### *Hillsmere Library Bioretention Annapolis*

Technique: **Bioretention**
Total Cost: **$104,000**
EDI Grant: **$ 52,000**
Status: **In Progress**

Anne Arundel County proposes to design and construct a bioretention facility that will treat parking lot runoff from a public library. The project area drains to **Harness Creek in the South River Watershed**. Signage would serve to educate residents about the importance of bioretention techniques and systems in filtering stormwater and encourage residents to implement similar smaller scale "rain gardens" on their own properties.

### *Permeable Pavers/Biotention City of Leonardtown*

Technique: **Multiple**
Total Cost: **$290,000**
EDI Grant: **$130,000**
Status: **In Progress**

The Commissioners of Leonardtown propose to rehabilitate an existing municipal parking lot through the design, engineering, and construction of environmental design techniques to minimize stormwater runoff, integrate an adjacent **overflow parking lot,** and rehabilitate the stormwater management system. Techniques that may be used include, but are not limited to, pervious paving surfaces, bioretention cells, and landscape infiltration gardens.

### *Street Bioretention Project City of Ocean City*

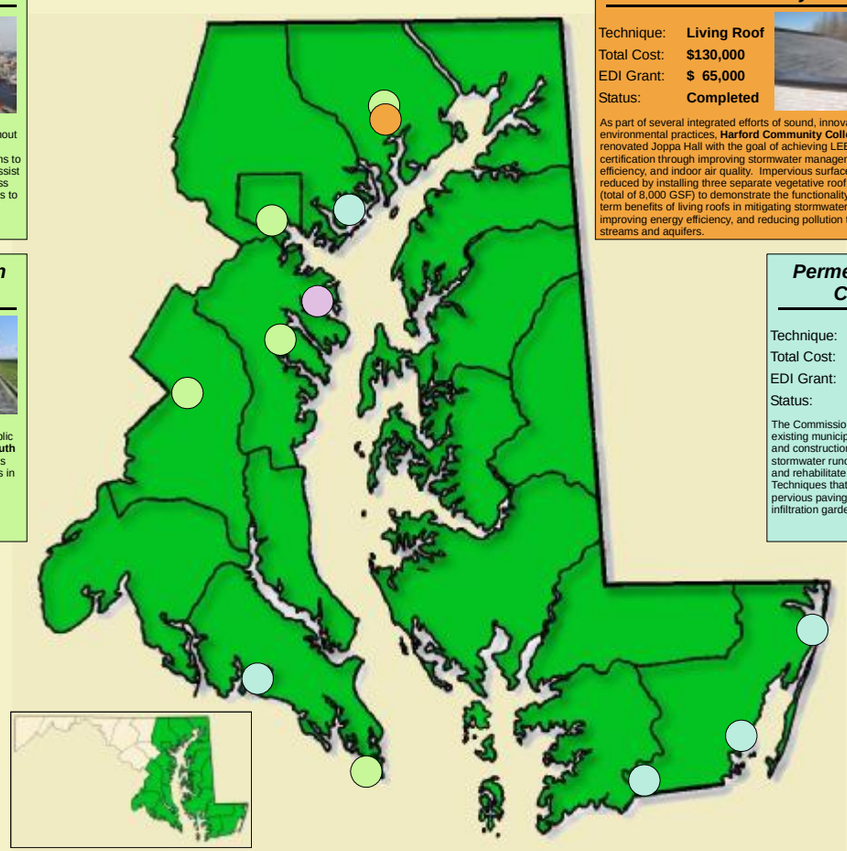
Technique: **Multiple**
Total Cost: **$ 60,000**
EDI Grant: **$ 30,000**
Status: **In Progress**

The **Town of Ocean City** proposes a pilot project to retrofit a stormwater outfall at the end of 63rd Street (bayside). This retrofit will incorporate habitat enhancement and removal of trash and hydrocarbon, and will improve the overall water quality conditions within the Isle of Wight Bay watershed. There are no less than 23 similar outfalls in Ocean City, which could be patterned after this project to further reduce nonpoint source pollution into the Isle of Wight Bay.

### *Green Building Urban Retrofit Prince George's County*

Technique: **Bioretention**
Total Cost: **$320,000**
EDI Grant: **$ 90,000**
Status: **In Progress**

Prince George's County proposes to develop a **holistic design** incorporating low impact development, green building, and pollution prevention techniques throughout their Peppercorn Place facility. The goal is to design, engineer, and construct a living laboratory that will demonstrate the efficacy of implementing environmental design building and site approaches.



### *Boat Ramp Bioretention Point Lookout State Park*

Technique: **Bioretention**
Total Cost: **$ 70,000**
EDI Grant: **$ 35,000**
Status: **In Progress**

The Maryland Department of Natural Resources proposes to protect local streams and rivers by constructing a bioretention facility and replacing a section of existing parking lot with permeable pavers. The goal is to increase **groundwater recharge and treat runoff into the Potomac River** and Chesapeake Bay, educate the general public, and demonstrate innovative site design techniques for future state projects and facilities.


Robert L. Ehrlich, Jr, Governor
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